Draft
Delfasco Forge, Grand Prairie, TX
Work Prioritization and Resource Utilization Estimate
7/14/09

1) Provide mitigation systems for approximately 100 homes above the groundwater plume. Systems would consist of: 1) crawlspace homes - solar or hardwired ventilation fans in the crawlspace with a battery for nighttime operation and backup on cloudy days and 2) slab homes - subslab systems similar to those installed for radon mitigation, hardwired or solar installation available.

   Solar installation in crawlspace homes – 10 watt solar panel, 200 CFM fan, battery - $350 each
   Install 1 hour - $70 per hour
   Other contractor overhead - $5,000
   Total for 75 homes - $36,500

   Solar installation for slab homes – radon type system - $1,500 each
   Install 3 hours - $70 per hour
   Other contractor overhead - $5,000
   Total for 25 homes - $47,750

   Total installation for 100 homes - $84,250

   (Electricity cost for hardwired systems: approx. $8 per month)

2) Contingency for potential additional mitigation systems based on plume migration and/or additional delineation.

   Solar installation in crawlspace homes – 10 watt solar panel, 200 CFM fan, battery - $350 each
   Install 1 hour - $70 per hour
   Other contractor overhead - $2,000
   Total for 15 homes - $8,300

   Solar installation for slab homes – radon type system - $1,500 each
   Install 3 hours - $70 per hour
   Other contractor overhead - $2,000
   Total for 10 homes - $19,100

   Total installation for 25 homes - $27,400

3) Life expectancy of ventilation systems is approximately 5-7 years. Plan for replacement of all systems for 3 cycles (20 years).

   Replacement of all systems 2 times after initial install - $223,300

4) Summa canister testing of indoor air after systems have been installed to make sure they are meeting the screening goal of < 1ug/m3 indoor air. Sampling should be conducted during the winter months. Approximately 10 homes would be verified.

   Summa canister and laboratory analysis - $500 each
   10 homes - $5,000
   Contractor labor and ODCs – 20 hours - $70 per hour - $1,400
   Other contractor overhead - $2,000
   Total - $8,400

5) Summa canister testing of homes outside the potentially impacted area unsure no additional home mitigation is necessary. Approximately 10 homes would be verified.
   Summa canister and laboratory analysis - $500 each
   10 homes - $5,000
   Contractor labor and ODCs – 20 hours - $70 per hour - $1,400
   Other contractor overhead - $2,000
   Total - $8,400

6) Installation of one additional groundwater sentinel well NE of Rinehart and 32nd street.

   Well installation 40 foot well @ $100 per foot - $40,000
   Mod-demob-disposal and contractor overhead - $5,000
   Total - $45,000

7) Conduct groundwater sampling every other year to evaluate plume stability.

   Monitor 8 perimeter wells via low flow for VOCs.
   VOC analysis $130 per sample - $1,040
   Labor to collect samples – 2 persons for 2 days - $70- per hour - $2,800
   Other contractor overhead - $2,000
   Total monitoring costs - $5,840

   Monitoring period 20 years - $58,400

8) Conduct source area remediation in groundwater. Bioagumentation via temporary wells.

   TBD

9) Monitor groundwater to determine effectiveness of source treatment.

   TBD